

## DETAILED ACTION

### *Election/Restrictions*

1. Claims 6-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 2/21/2008. The claims 2- 5 corresponding to species of Figures 1 and 2 and generic claims 1, 20, 21, and 22 remain for further consideration.

### *Drawings*

2. Figure 13 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to because the subject matter claimed (e.g., the valve passages inside the block between valves V1, V2, V3 in Figures 1 and 2 and the monoblock valve) are not assigned reference characters. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if

only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 20, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 1, the specification refers to the polyhedral block having a plurality of valves as a monoblock valve. However, in line 4 of claim 1, the applicant appears to claim one polyhedral block and a distinct block valve which are one and same in the specification. Claims 20 and 21 are rejected as being dependent on indefinite claim 1.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pinkham (US Patent 5906223) in view of Anderson (US Patent 6767001).

3. Regarding claim 1, Pinkham (Fig. 2, 3, 4) discloses a block valve 30 having a polyhedral shape having a plurality of passages and valves 72, 74, 76, 78 interacting with each other. Pinkham fails to disclose a feeding tank, destination device of a connection through a sealing or raw solution delivery. Pinkham (column 1, line 24) discloses the system as used for solvent delivery. It would have been obvious to a person of ordinary skill in the art to have used the system for vaporizer raw solution on an application needed basis which would inherently comprise of a source tank and a destination. Anderson (Fig. 4; column 5, line 26) teaches a sealing element 116 between a valve 94 in a manifold and a connector 92 to prevent leaking. It would have been obvious to a person of ordinary skill in the art to have provided the block valve disclosed by Pinkham with the sealing element as taught by Anderson in order to make the connections leak free.

4. Claims 1, 20, and 21 are alternately rejected under 35 U.S.C. 103(a) as being unpatentable DuRoss (US Patent 5794659) in view of Anderson (US Patent 6767001).

5. Regarding claim 1, DuRoss (Fig. 8) discloses a monoblock valve 102 having multiple valves 202, 204 and passages 216, 220 interconnected to each other. DuRoss discloses the valves having multiple inlets and outlets. DuRoss discloses some of the openings of the valves 222, 230 to outside of the block. DuRoss fails to disclose a feeding tank, destination device of a connection through a sealing or raw solution delivery. It would have been obvious to a person of ordinary skill in the art to have used the system for vaporizer raw solution on an application needed basis which would inherently comprise of a source tank and a destination. Anderson (Fig. 4; column 5, line 26) teaches a sealing element 116 between a valve in a manifold and a connector to prevent leaking. It would have been obvious to a person of ordinary skill in the art to have provided the block valve disclosed by DuRoss with the sealing element as taught by Anderson in order to make the connections leak free.

6. Regarding claim 20, DuRoss (Fig. 8) teaches a block valve having multiple valves 202, 204 and passages 216, 220 wherein the valves are diaphragm type valves.

7. Regarding claim 21, the claim does not disclose any additional elements except the optimum valve of the diameter. It would have been obvious to one having ordinary skill in the art at the time of invention to have used the optimized value of diameter claimed since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

8. Claims 2 -5 are rejected under 35 U.S.C. 103(a) as being unpatentable over DuRoss (US Patent 5794659).

9. Regarding claim 2, DuRoss (Fig. 8) discloses a monoblock valve 102 having multiple valves 202, 204 and passages 216, 220 interconnected to each other. DuRoss discloses the valves having multiple inlets and outlets. DuRoss discloses some of the openings of the valves 222, 230 to outside of the block. DuRoss fails to teach the particular fashion of the connection between the valves or exact number of valves as claimed. However with the general state of the claimed invention (namely multiple valves in one block interconnected to each other), the specific number and manner of connection of the valves inside the monoblock would have been a matter of application/use based design choice to person of ordinary skill in the art.

10. Regarding claim 3, DuRoss discloses (column 7, line 14) one of inlets 222 as a purge gas inlet. It would have been obvious to person of ordinary to have used the inlets disclosed by DuRoss as pressure gas or cleaning agent on as needed basis.

11. Regarding claim 4, DuRoss (Fig. 8) discloses one of the passages 230 as horizontal.

12. Regarding claim 5, DuRoss discloses (Fig. 8A) openings on flat surface 302.

13. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over DuRoss (US Patent 5794659) in view of Mathur (US Patent 6886421).

14. Regarding claim 22, DuRoss (column 1, line 33) discloses purging to flush and therefore clean a fluid delivery system comprising valves. DuRoss fails to disclose a raw solution prevented from dropping by surface tension. Mathur (column 12, lines 28-32) describes a method of cleaning inside of a fluidic apparatus by using air as a slug to push the liquid where liquid is held together by means of surface tension. It would have

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been obvious to a person of ordinary skill in the art to have used the method of cleaning as taught by Mathur in the device disclosed by DuRoss in order to avoid wetting of the surfaces and thus provide complete flushing of the liquid fluid.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Atif H. Chaudry whose telephone number is 571-270-3768. The examiner can normally be reached on Mon-Fri Alternate Friday off 9-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson can be reached on 571-272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**ATIF CHAUDRY**  
**PATENT EXAMINER**  
**4/9/2008**

/Stephen M. Hepperle/  
Primary Examiner, Art Unit 3753